



Office of the State
Fire Marshal—
Prevention Division

Prevention Highlights

Spring 2015



Spring has sprung! The newness of all good things is here. Prevention is no different. We are headed in the right direction and making good strides toward preventing fires.

Our smoke alarm program is off to a smokin' good start. Many fire departments have jumped on board, and are diligently installing alarms in one/two family dwellings. Thank you so much for all your help with this! If your department would like to be involved in the program please get ahold of us. As we continue to have requests for the alarms we will order them and have them available to fire departments who can do the installations. If you or someone you know need a smoke alarm in your home please contact your local fire department.

Inspections are constantly busy and gearing up for 2102 IBC/IFC code adoptions. This will take a little time for everyone to adjust. However, we anticipate a smooth changeover. Working together we can adjust to the changes that will surely come.

Code adoptions are on the horizon! Our office will be adopting the 2012 IBC & IFC this July. No formal public hearing has been scheduled yet but when it is we will let you know. You can always check our website for updates as we move along in this endeavor. We appreciate your input and have already been receiving questions about referenced codes. We will take into account all recommendations as we transition.

These code adoption are not to be confused with NFPA Life Safety Code. We have not been given the "green light" from CMS to adopt the 2012 NFPA version so we are still working out of our current code books. Once CMS has given the ok we will be adopting 2012 NFPA 101 LSC version but not as of yet.

Got news? We want to know about it! How are you helping to keep Kansans fire safe? We invite you to share your success stories!

Inside This Issue:

- [Spring into Fire Prevention](#)
- [Red-Flag Warning](#)
- [Success](#)
- [Home Daycares](#)
- [Immediate Jeopardy](#)
- [Boiler Explosions](#)
- [Violations](#)
- [Propane Leak Test](#)
- [Prevention News](#)

Prevention Highlights



SPRING INTO FIRE PREVENTION

By: Mende Barnett, OSFM Education Consultant



This is a good time of year to declutter some of that stuff in the garage that has been building up over the year. While doing so take this opportunity to think about your fire safety.

Going through old holiday decorations and unused items can actually help you in the event of a fire. As we continue to gather and acquire new things we literally are adding fuel to the fire. These combustible items such as paint cans, tires, and old clothes, are just what a fire needs to spread quickly through your home. For fire to ignite, you need three elements; oxygen, fuel and heat. When you add more fuel (i.e., clothing, papers, etc.) to the fire it will burn hotter and faster.

So get those gloves on and get to work! It might be easier to start with one room and move to the next. Keep in mind what may be in that room that needs special attention such as your smoke alarms. This is a good time to test your smoke alarms and vacuum away any debris or dust. You may even need to change your batteries.

Exhaust vents, hoses and vent traps from your laundry are usually in need of a good cleaning about this time. Vacuum away any excess lint and debris from those areas. These can be a fire waiting to happen.

To prepare for hot weather go ahead and take a look at your bushes and tree limbs. You can get rid of any excess brush to prevent a grass fire.

You may be preparing to fire up the grill now that the weather is nice. Check it over thoroughly before use. When using a gas grill, make sure there are no leaks and the connections are in good condition. If using a charcoal grill, make sure you get rid of any old remnants left in it and that you are careful when igniting it.

When cleaning out closets and stairways be sure to keep landings and hallways clear for safe evacuations. Check to make sure flammable and combustible liquids are labeled and stored in a locking garage or shed. Never use gasoline as cleaning agent or store it inside your home.

Get your kids involved by designing and practicing an escape plan. Make sure every family member participates and that you practice getting out from each room. Remember to have two-ways out!

Misusing electrical cords and outlets can result in an electrical fire. You can quickly look at your outlets to make sure you are not overloading them. If you see overloaded sockets, remove some of the items and find a new outlet. Also, make sure electrical cords are not run under carpeting or rugs.

Did you use extension cords and light strands for the holidays? Take a look at your cords and make sure they are not frayed or cut. Replace any electrical cords that are damaged.

Not only is decluttering and cleaning out old items a good idea in your home but also in the workplace. Take a day or afternoon to get rid of unwanted items, like recycle paper, electronics, and books — just about anything that isn't being used or wanted. (*Check with your boss before throwing anything away, even if that boss is your wife.*)

Remember there are lots of places to take unwanted items. Many towns have a Goodwill store and libraries will often take books. Even your local homeless shelter can use a lot of these items. If you have things like old paint and chemicals, be sure to dispose of those properly.

Happy Cleaning!



RED FLAG WARNING

By: Mende Barnett, OSFM Education Consultant

Most of us know that when a tornado watch is issued this means conditions are favorable for tornadoes.

But do we all know what a red flag warning means? When a red flag is issued, it means conditions are favorable for wild and grass fires. Just as a tornado watch the purpose is to notify citizens and help keep Kansans safe.

Wildfires are happening all over the state because of the warm and dry weather and they can quickly become out of control if not handled properly. When a grass fire becomes too large to be managed it puts both property and lives at risk. Obeying the red flag warning is imperative to keeping you and those around you safe.

Kansas experienced a significant increase in acres burned between 2013 and 2014. Total acres burned rose from 22,482 in 2013 to 184,716 in 2014 – more than 8 times as many field burns in just one year. (KFIRS Reporting)

Some safety tips when burning to ensure a burn doesn't become a wildfire is:

- Know all state and local fire restrictions. Check with county officials who are charged with deciding whether burning is permissible based on local conditions.
- Notify neighbors as a courtesy prior to

burning.

- Postpone the burn if unsure of the weather conditions.
- Have adequate resources and equipment available to prevent escaped fires.
- Consider smoke management to avoid unsafe roads and air quality conditions.
- Do not burn to the ends of the field. Setting boundaries, "back burning" and keeping the fire off of fence rows will prevent out-of-control burns.
- Have plenty of people to help (one person per acre may not be enough)
- Call fire department right away if you suspect the burn is getting out of control.

The National Weather Service will post burn bans on their [website](#). Here you are able to look at counties all over the state to determine if you are able to burn.

Another helpful resource is the [Kansas Flint Hills Smoke Management](#). This website provides Fire Management practices, the purposes of burning and also a calendar of counties that will be holding burn classes.





WHAT DOES SUCCESS MEAN TO YOU?

By: Mende Barnett, OSFM Education Consultant

We all have different reasons why we want to succeed in life.

Maybe we want to better ourselves, make more money, have a better education, be good role models for our kids or maybe we just want to prove to ourselves that we can do something. But what does success mean?

The Merriam-Webster definition of success is: *obsolete, outcome, result, a degree or measure of succeeding, favorable outcome.*

Success to me is quite personal. My success is not based on what others think of me and it is not monetary. In fact it's quite the opposite. Success to me is not about how many Facebook friends I have or how many connections on LinkedIn. It is far more meaningful (not that I don't appreciate all my friends and contacts).

I just mean I don't measure my success by those factors. How I define success is based on the internal drive to push myself to the next level. It's about conquering those fears, rising above the "I can't do it" and proving to myself that I can. This is one time I feel it is ok to be a little self-centered and focus on my personal successes.

Success in Fire Prevention

In the realm of fire prevention, success is measured by the number of fires prevented. This is where data is

extremely important. The reporting of fires and completion of those reports help us determine if what we do has made a difference — if we have succeeded. In public safety it is all about who we have reached, our audience so to speak. It's about saving lives.

Certain times of the year we focus on college students, while other times we focus on younger kids. More importantly we are focused on Kansans as a whole — educating others on how to live fire-safe lives at home and at their places of business. This is not an easy task. One that I cannot conquer alone.

Whether it is in the form of inspections, public education, classes or even through email, if we save lives then we are succeeding.

Zig Ziglar is one of my favorite authors. He was a great motivational speaker and wrote many books about how to succeed. Some of his characteristics



that he believes comprise success are:

1. knowing that you did a great job when you close the door to your office at the end of each workday and head for home.
2. having an interest or hobby that gives you joy and peace.
3. having a home and people who love you in return.
4. taking good care of yourself and your fellow neighbor.

By succeeding personally or professionally you are improving. That isn't always easy to do. In fire service, we look at the whole pie, not certain pieces. We have to, because we are all in this together. Your success is our success and vice versa.

Whatever your successes may be, big or small, know that they make a difference.

So keep on keeping on.



HOME DAYCARE NEWS

By: Brenda Reber, OSFM Enforcement Officer

On an average we have over 9,000 home daycares in the state. They tend to come and go but these homes care for some of Kansas' most precious residents.

As with a residential home, it is important to remember fire safety. Since these types of residences are also being used as a business it is our job to remind them of these safety requirements.

Home daycares need to have a working smoke alarm on each level of the home, in each sleeping room and every exit pathway. These alarms need to be hardwired to the electrical system with battery backup or have a ten-year lithium 9V battery installed in them.

Excerpt from Fire Life Safety Agreement, "My smoke detectors are powered by 10-year lithium batteries or are hard-wired with battery back-up."

Do these ten-year lithium batteries last ten years?

You have to remember that we as consumers don't know exactly how long those batteries have been sitting on the shelf. The best way to determine is to look at the date marked on the battery or packaging. Most manufacturers will say they are 10-year batteries but when you read the fine print it will say "up to" ten years. However, they are worth spending the few extra dollars to get that extra lifespan. When the home daycare provider signs the Fire/Life Safety Agreement upon inspection they are agreeing to the fact that they will have these smoke alarm in place.

Other Home Daycare Fire and Life Safety requirements are:

- Every escape path including hallways and stairways is clear of obstacles and all doors are in proper working conditions.
- Children can open every closet door from the inside at all times.
- Child care is on the main level and has two remote compliant exits.
- Written emergency procedures for fire evacuation are provided and practiced monthly.
- Monthly fire drills are documented. Drills shall be conducted and evacuation times shall be within 4 minutes.
- All unused electrical outlets (in licensed areas) have child-resistant protective covers.
- All natural gas, kerosene, wood, propane heaters, etc. are properly vented to the outside of the home.

This is not a complete list. For additional forms and information please visit our Home Daycare link on our [website](#).



Another option is purchasing smoke alarms on the market that already have ten-year lithium batteries installed in them. Instead of changing the batteries you change out the entire alarm.

Again, you will want to pay attention to the manufacturer date on the alarms.



IMMEDIATE JEOPARDY

By: Jason Lady, OSFM Fire Protection Specialist



If you are healthcare administrator, operator, or facility owner you may have heard this term or have had it happen to your facility.

When items are found during an inspection that do not meet the criteria for Centers for Medicare and Medicaid Services checklist they are considered distinctly hazardous.

What is Immediate Jeopardy or IJ status?

It includes all those who are certified Medicare/Medicaid entities. CMS defines Immediate Jeopardy as, *"A situation in which the provider's noncompliance with one or more requirements of participation has caused, or is likely to cause, serious injury, harm, impairment or death to a resident."*

In these conditions the violations will need to be corrected immediately, and the inspector will remain on site until they are completed. This may include immediate evacuation of the building, and the building may become unusable until the problem is corrected and appropriate planning for fire safety is shown.

Immediate Jeopardy is broken down into three categories; Harm, Immediacy and Culpability. Harm can be actual or potential.

Immediacy is based off the answer to this question: is the harm or potential harm likely to occur in the very near future to this individual or others in the entity, if immediate action is not taken?

Culpability is defined by whether the entity knew about the situation and if so when did the entity first become aware? Should the entity have known about the situation and did the entity thoroughly investigate the circumstances? Did the entity implement corrective measures? Has the entity re-evaluated the measure to ensure the situation was corrected?

What triggers an IJ status?

Failure to provide safety from fire, smoke, and environmental hazards and/or failure to educate staff in handling emergency situations could trigger an IJ status. Some situations that would trigger an IJ status are: Nonfunctioning or lack of emergency equipment and/or power source; smoking in high risk areas, incidents such as electrical shock, fires; ungrounded/unsafe electrical equipment; widespread lack of knowledge of emergency procedures by staff; lack of functioning ventilation, heating or cooling system placing individuals at risk; use of non-approved space heaters, such as kerosene, or electrical, in resident rooms or patient areas; locking exit doors in a manner that does not comply with NFPA 101; obstructed hallways and exits preventing egress; lack of maintenance of fire and life safety systems.

We all want to make sure our facilities are fire-and-life-safety-safe and by doing so we need to educate ourselves and our staffs about what can occur. CMS has put together some [guidelines](#) for determining Immediate Jeopardy.



BOILER EXPLOSIONS

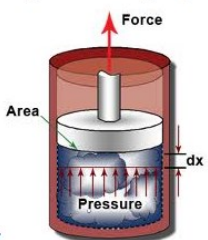
By: Charles Wilson III, Deputy State Boiler Inspector



Boilers and pressure vessels have the potential of becoming an explosive bomb. Public awareness of proper maintenance and inspection is vital for personal and public safety.

Hot water heaters are usually reliable however imagine this: if you could capture all the energy released when a 30-gallon home hot-water tank flashes into explosive failure at 332 degrees F, you would have enough force to send the average car weighing 2,500 pounds to a height of nearly 125 feet at 85 miles per hour! That's only a home hot-water tank not an industrial size tank that some facilities have on site.

Now that we have that into perspective, let's look at some of the ways these types of explosions can occur. Superheated liquid results when a liquid transforms quickly into gas, causing a rapid pressure increase. These conditions disrupt the temperature/pressure balance, causing the fluid (steam) system to seek out a new equilibrium. When this occurs in a closed vessel, as the liquid accidentally heats above its boiling point, the physics of the system tries to re-establish equilibrium



causing an explosion.

Another common result is the runaway firing condition that takes place when the boiler's burner does not shut off. In this case, when the hot-water heater is connected to the city water supply on one side and the building hot-water service on the other, the check valve will shut off and no back pressure will go into the city side. Instead, the tank will take the pressure. As a result, the temperature in the tank will rise. This temperature rise will compromise the tank structure, weakening the metal around the bottom of the tank and causing a sudden failure.

Of course, a properly functioning pressure and temperature relief valve would prevent such a failure, but a properly installed and maintained safety valve is not a universal feature of pressurized vessels.

Different types of pressure vessels can be found in many tools that you may have not realized.

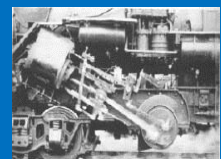
Autoclave



Helium



Piston



Ammonia



Gauge



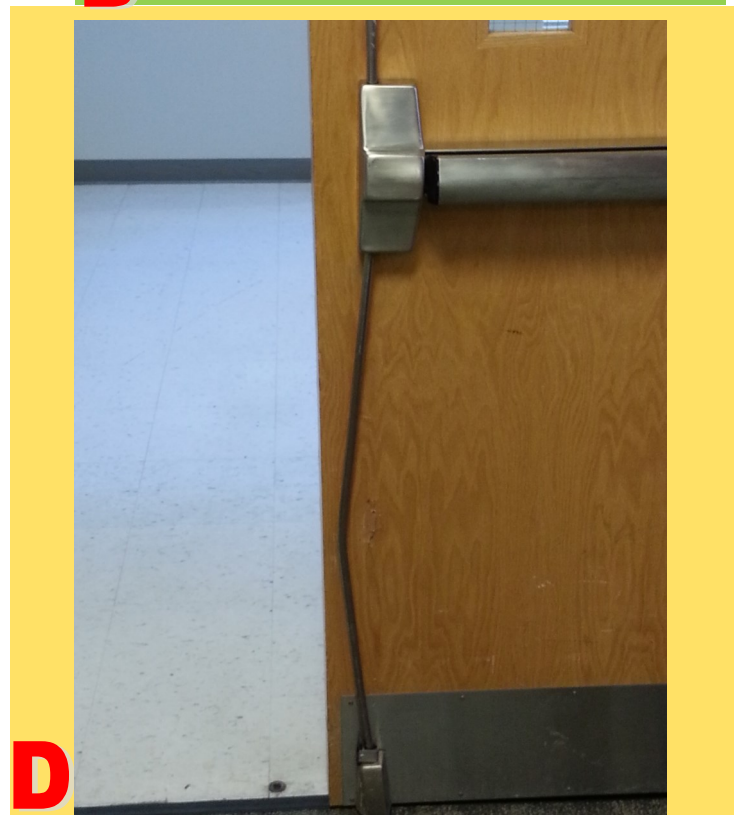
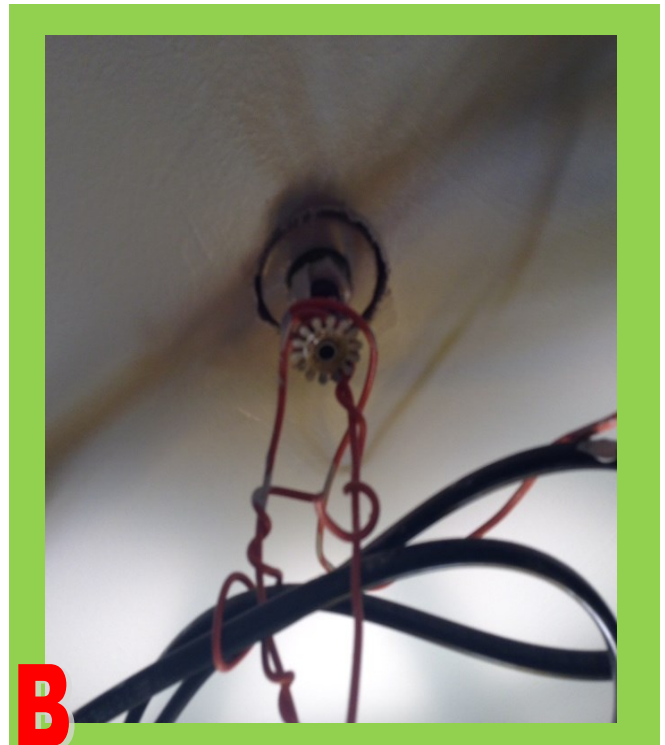
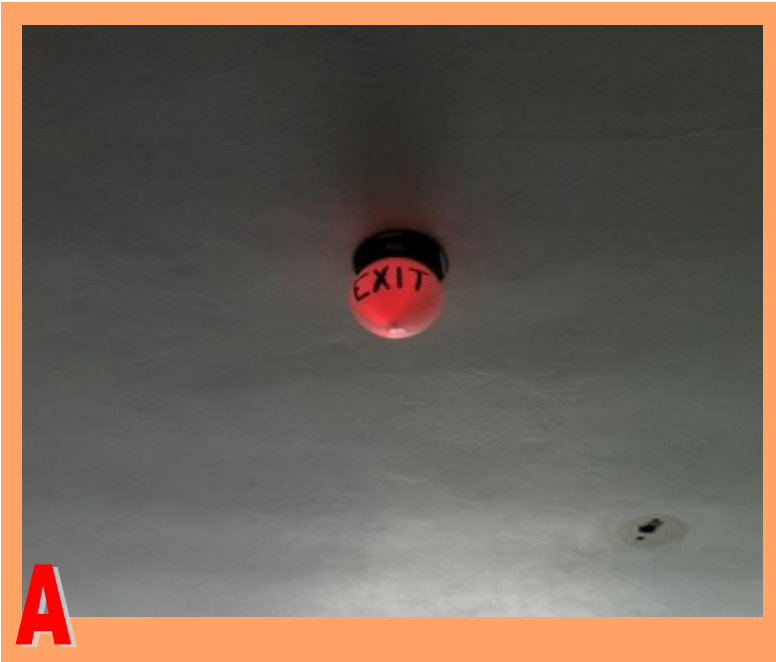
Compressed Air





CAN YOU SPOT THE VIOLATION?

By: Travis Sutton, OSFM Enforcement Officer





PROPANE LEAK TEST

By: Mike Wikle, OSFM Enforcement Officer

To ensure the safety of an existing propane installation, it is important to perform a leak test any time service is interrupted. An interruption of service can happen when tanks are changed out or any time the tank valve is turned off.

NFPA 54, *National Fuel Gas Code*, is the standard for performing leak testing. It also provides procedures for reducing hazards associated with gas leaks.

When is a leak test required?

Immediately after the gas is turned on in a new system or into a system that has been initially restored after an interruption of service, the piping system shall be tested for leakage. If leakage is indicated, the gas supply shall be shut off until the necessary repairs have been made.

Remember, a leak test is not a pressure test. A pressure test is a test of the piping system using air or inert gas that does not include the connect appliances.

How to perform a leak test?

There are two distinct types of leak tests: low-pressure and high-pressure leak tests. In a low-pressure test you want to inspect all valves and pipe connections to make sure they are wrench tight. Insert a gauge or manometer into the downstream side of the final stage regulator. Open the tank valve to pressurize the system. Leave it open for a period of two or three seconds, then close it tightly. Check for leak. Bleed down to 9" plus-or-minus 1/2" and test for three minutes. If the system holds pressure for three minutes without falling, it is considered a leak-tight system.

When performing a high-pressure test, you need to attach a high-pressure gauge between the container valve and the first

stage regulator. Open the container valve to pressurize the system and leave it open for a period of two to three seconds, then close it tightly. Bleed down the system and check for leaks for three minutes, same as the low pressure test.

If you find a leak you will want to check the joints and other possible leak points with an approved leak detector such as a gas detector or liquid leak detector. Soapy water will work but it should be rinsed from the piping due to its corrosive nature. NEVER test with an open flame.

Instruments

When performing leak test there are several instruments available that you may use. They are:

- Block Gauge
- High-Pressure Gauge
- Water Manometer
- Magnehelic Gauge

In addition to the leak test being part of code, it is a necessary practice to ensure a leak-free installation and safety to all those in the area.



Leak Test Quiz

When is leak test required?

What is the purpose of a leak test?

Is it ok to use propane to perform a leak test?

What is considered a leak-tight system?

Is a leak test the same as a pressure test?

What else should you check if you find a leak?



Spring 2015

Prevention Highlights

PREVENTION NEWS

By: Mende Barnett, Education Consultant



OSFM is gearing up for the adoption of the 2012 IBC & IFC.

We hosted two classes through International Code Council in an effort to help make the transition as smooth as possible for all of us.

We would like to thank all those who attended and made the training a success. Also, a big thank you to the

University of Kansas and Office of Facilities & Procurement Management for their assistance with the training. Our goal is to help provide fire safety to building and facilities by keeping them code compliant.



Bringing awareness about the importance of fire safety is something our office takes seriously.

On February 23, 2015, 21 month old Sawyer White lost his life after a fire broke out in his home in Belleville, KS.

Sawyer's family has since been advocates for fire prevention and the importance of having working smoke alarms in your home.

Red Cross, along with many volunteers, worked diligently to install smoke alarms in Belleville homes. In an effort to help promote fire safety and also memorialize Sawyer

White's short life, a safety day is planned at the Belleville Fire Department on May 2, 2015.

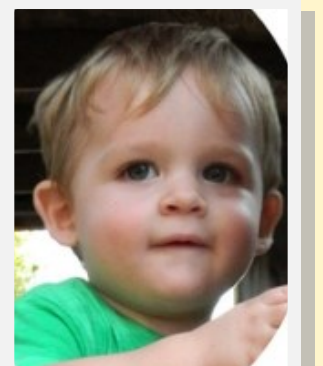
Our office, and many others, will be there to help ensure that with fire safety education your family does not have go through this type of loss.

Help us keep our Kansas communities safe.

Donations to the Sawyer White Memorial may be sent to the New Century Bank in Belleville, KS.

See the White Family share their story [here](#).

(Photo courtesy of Tibbits -Fischer Funeral Home)





Prevention Highlights

PREVENTION NEWS

By: Mende Barnett, OSFM Education Consultant



Be sure to check out our new blog page, "[Paws for Prevention](#)" that brings awareness to fires safety all over Kansas. It is written by our new mascot, Blaze!

Want to see "Blaze" in action? OSFM will partner with Safe Kids Kansas for the 2nd Annual Safe Kids Day at the [Topeka Zoo](#). Make sure to stop by the zoo on Saturday, April 25, 2015 for some friendly, family fun and all types of safety games and giveaways.

This is a great opportunity to help prevent childhood injuries and see what other types of resources are available to keep our Kansas kids safe. There will be everything from water safety to poison control and of course fire safety.

For more information about Safe Kids please visit www.safekidskansas.org.

Answers from page 8. A- Improper exit sign & placement. B- Sprinkler head should not have any impediments. C- Smoke alarm is not correct height, combustibles are too close to the ceiling, EXIT sign above the door is not reflective or right height. D- No positive latch



AKA Safety Equipment has a product on the market by the name of STOP-FYRE. It is a portable fire extinguisher that uses a blend of clean agent liquefied fire suppression gases.

1998, NFPA 10, 1-4.3 require fire extinguishers to have UL listing or listing from another recognized testing laboratory indicating the product has been tested and meet or exceed the performance standards for fire extinguishers.

This product does not meet any of those. This product is not approved by OSFM to be sold in the State of Kansas.



NFPA met last December to discuss School Shooting Plans. A final report should be available in May and will be disseminated. This is a topic that continues to be discussed and at the forefront of our office.

The National Association of State Fire Marshals (NASFM) recently put out a document about classroom door security. They have been preparing a guidance document for fire and school officials regarding the securing of classroom doors. It is a "School Security-Suggested Classroom Door Checklist". You can find the document [here](#).



We're on the Web!

www.firemarshalks.gov